

1/15

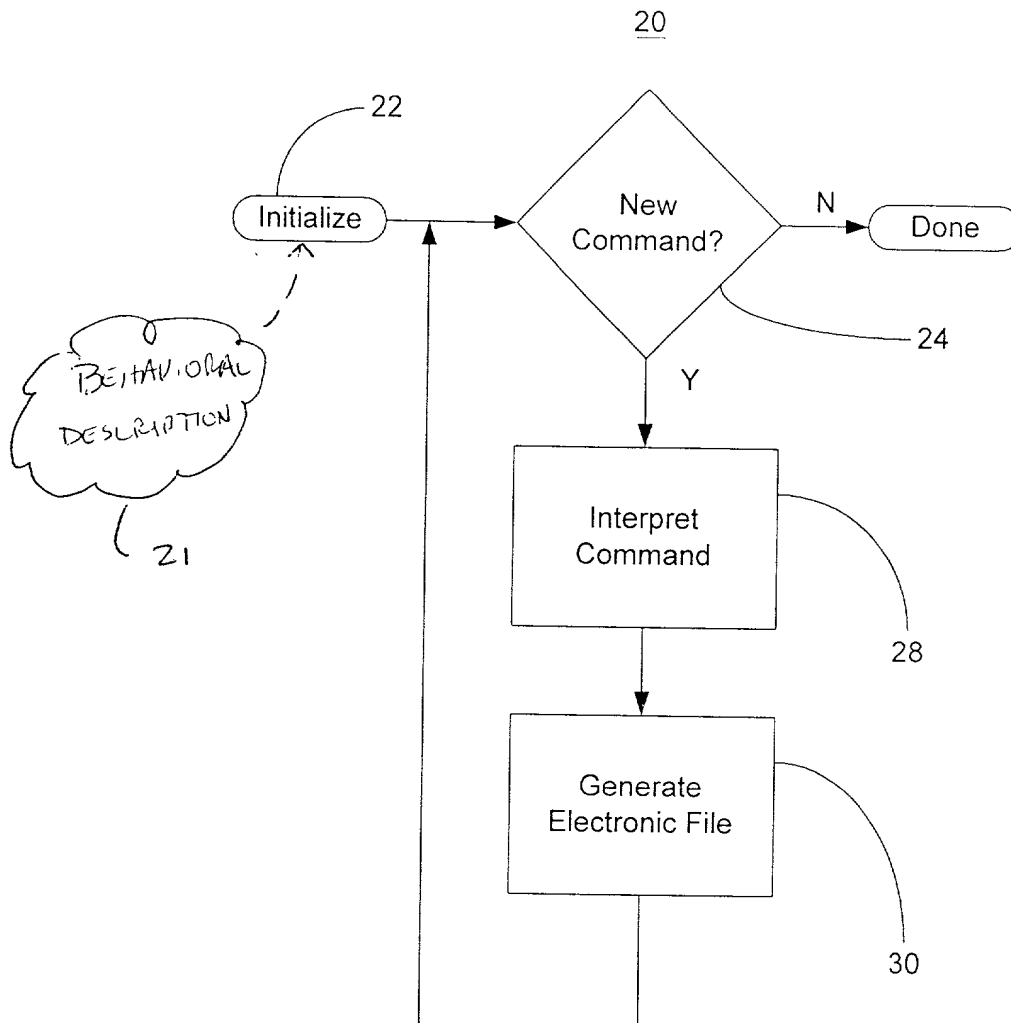


FIG. 1

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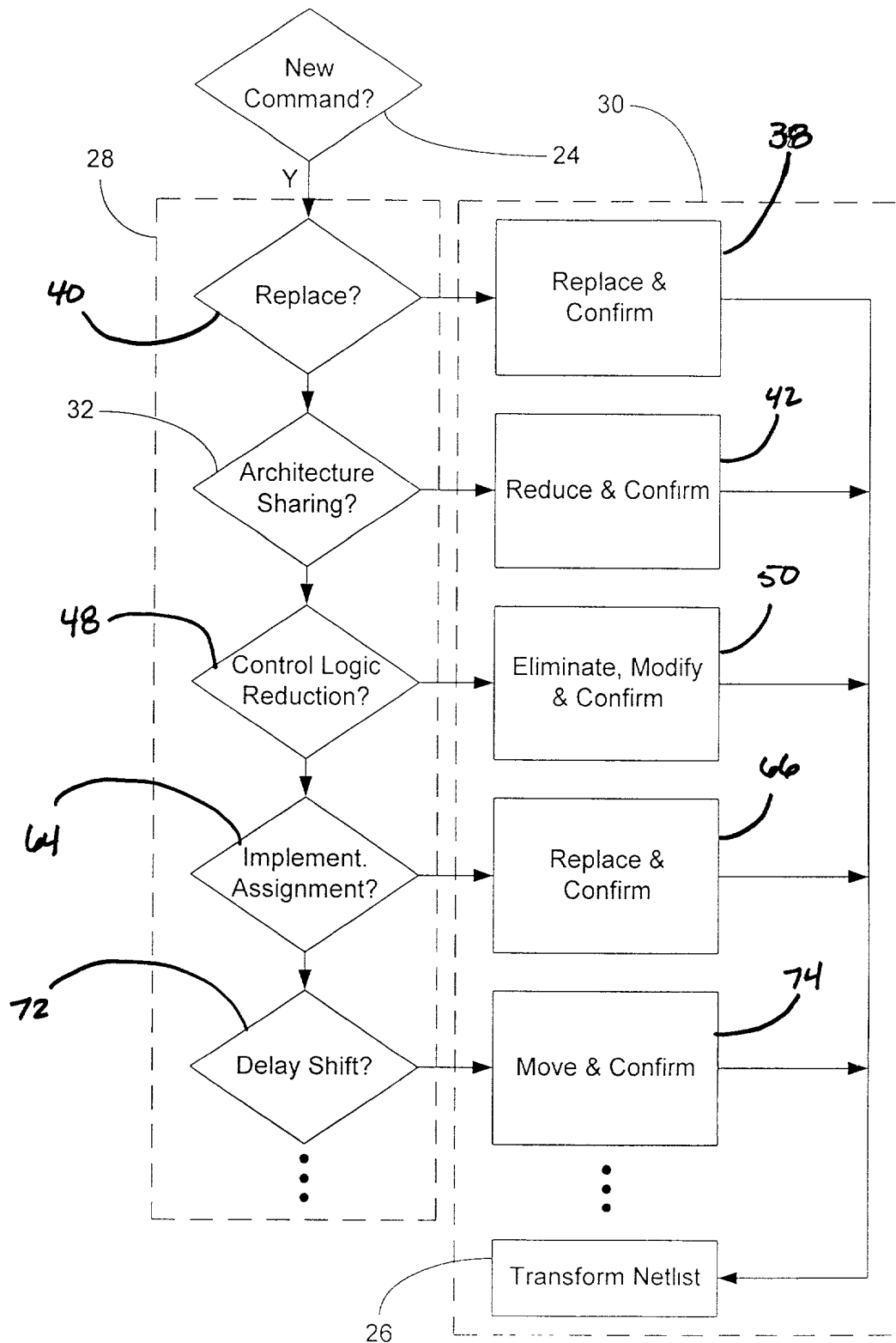


FIG. 2

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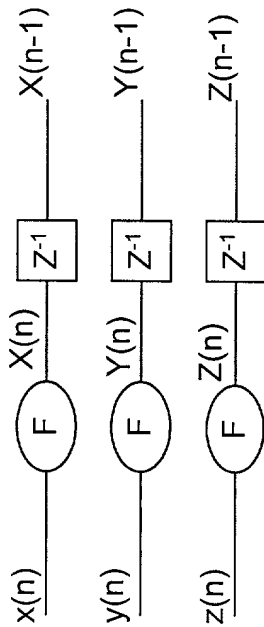


FIG. 3A

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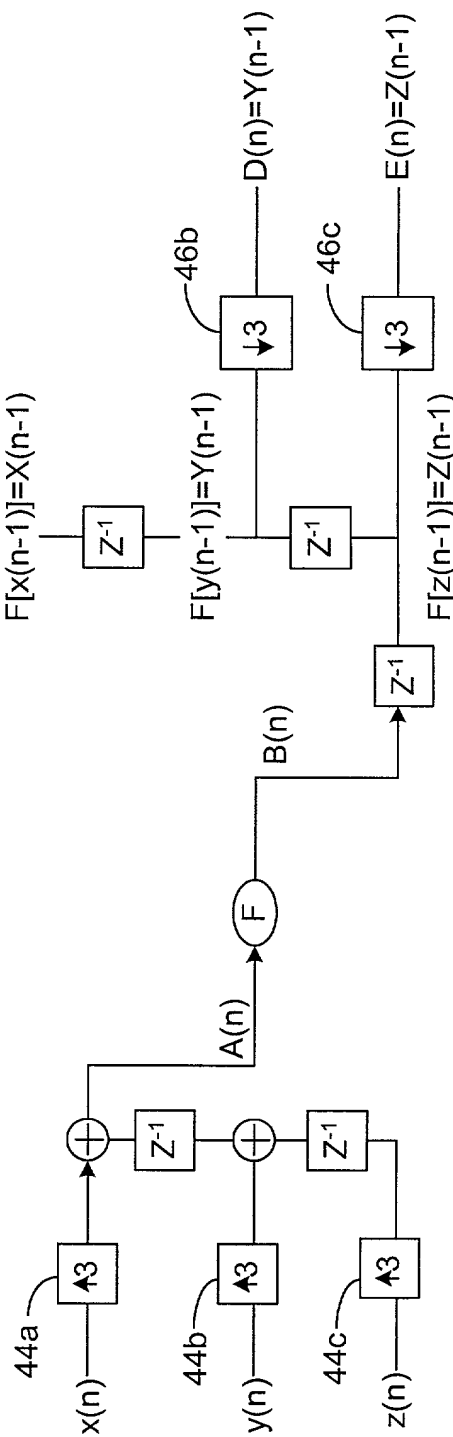


FIG. 3B

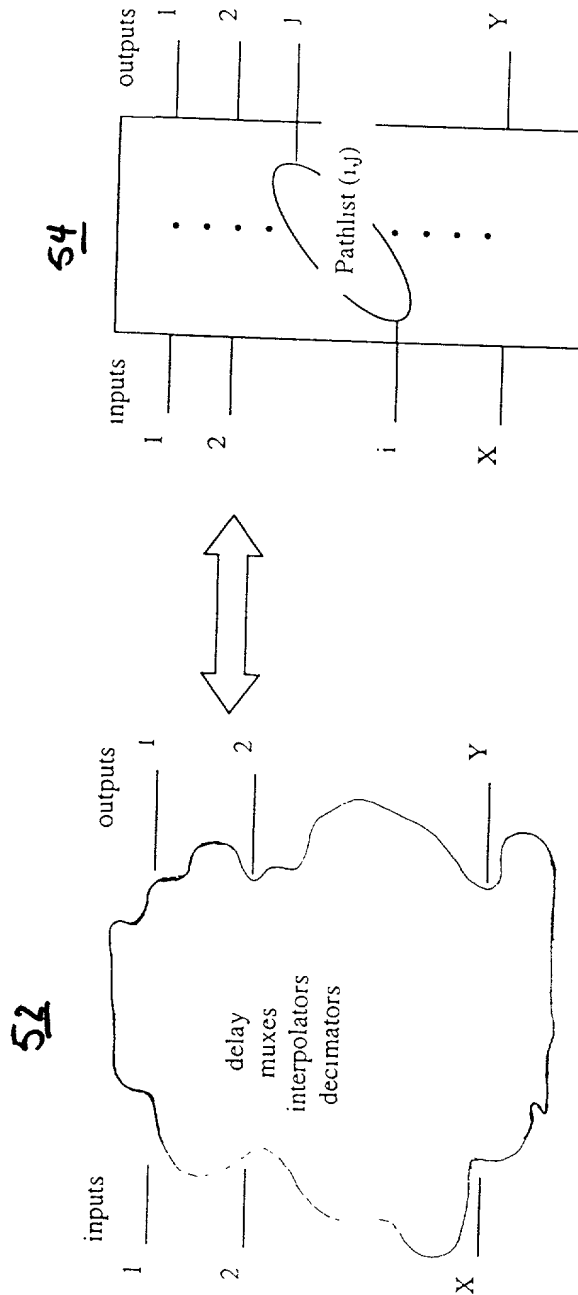


FIG. 4

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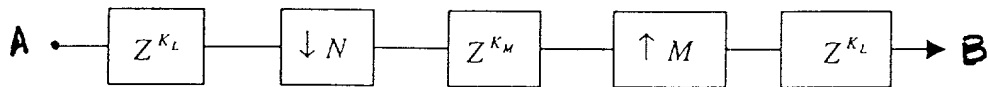


FIG. 5A

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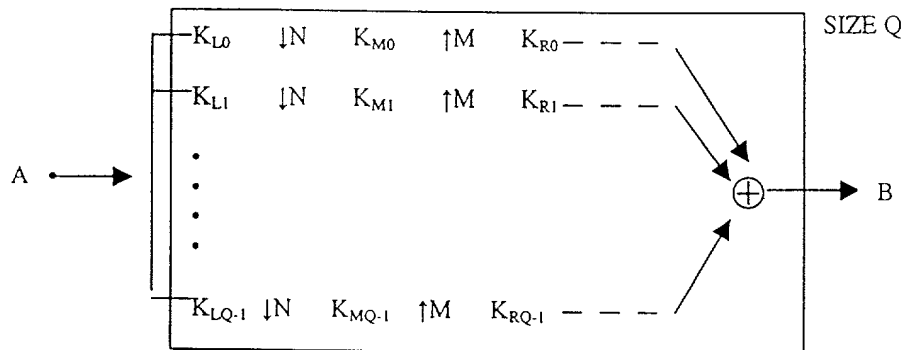


FIG. 5B

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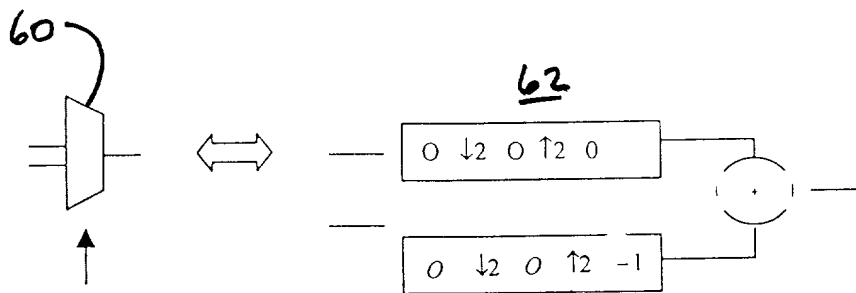


FIG. 6

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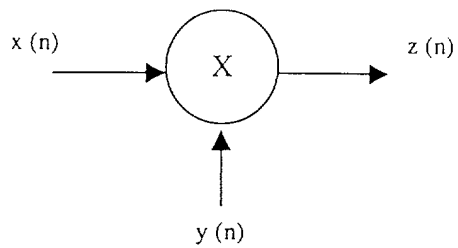


FIG. 7A

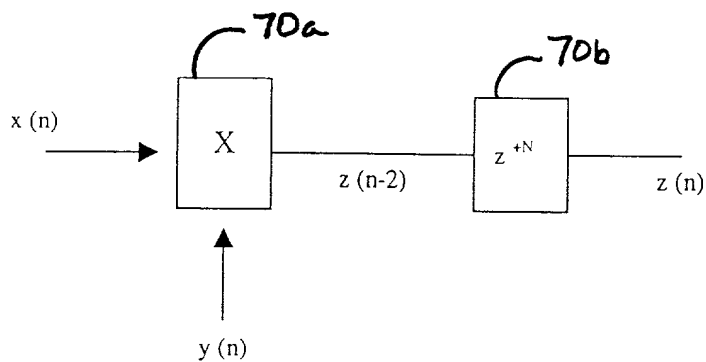


FIG. 7B

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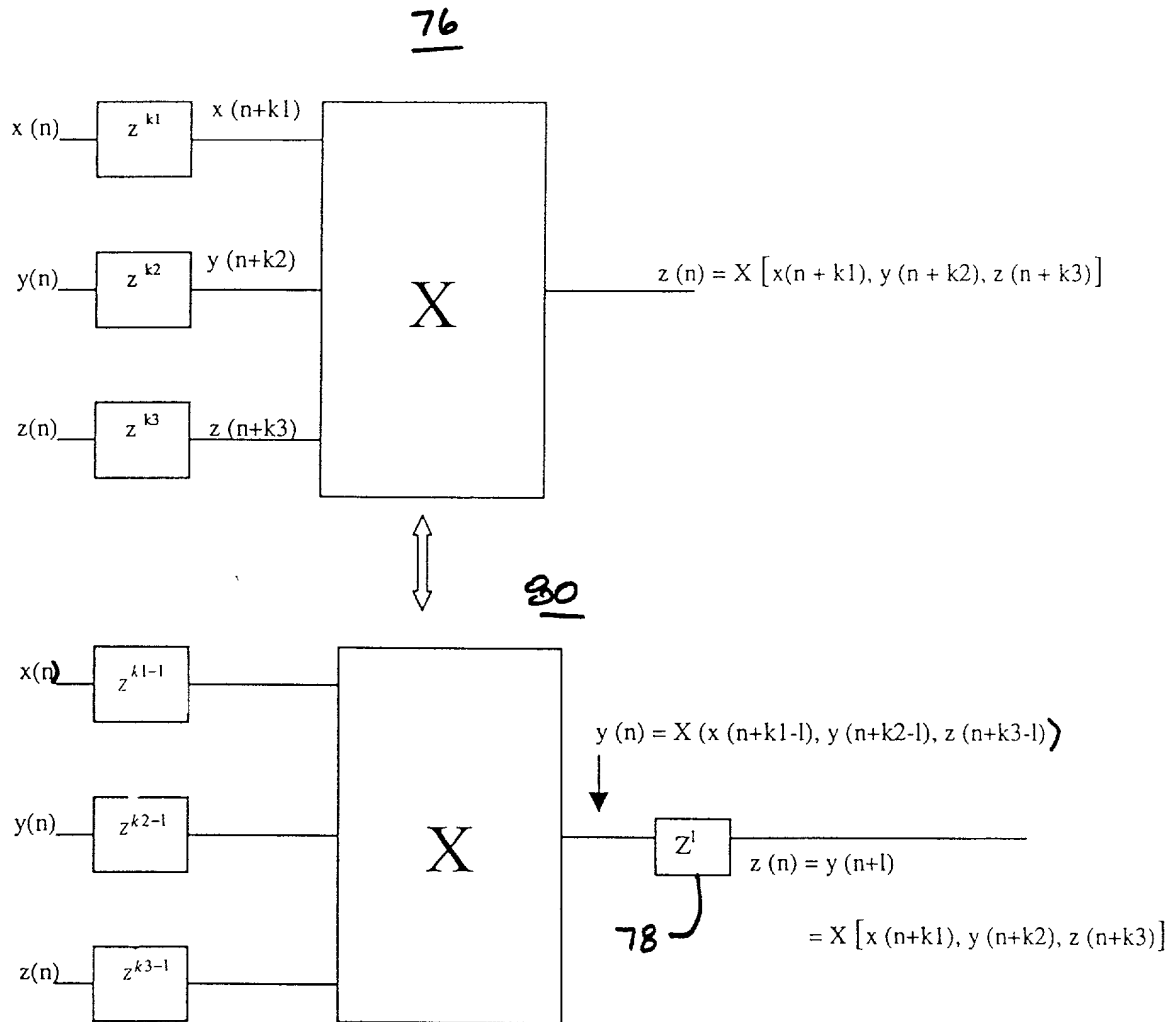


FIG. 8

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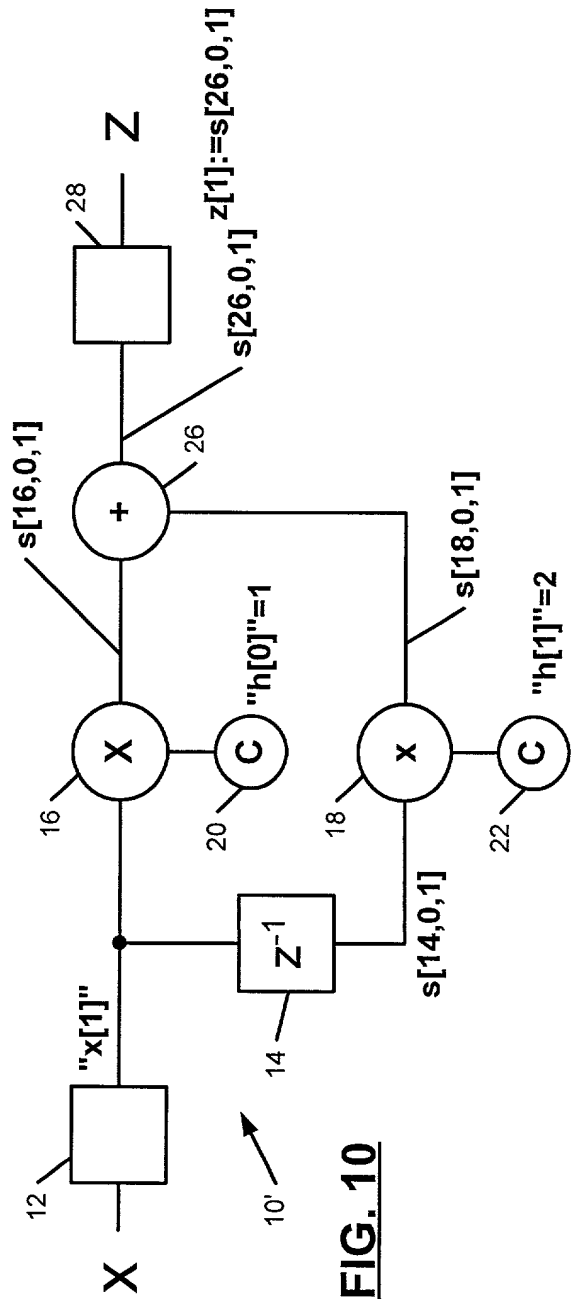
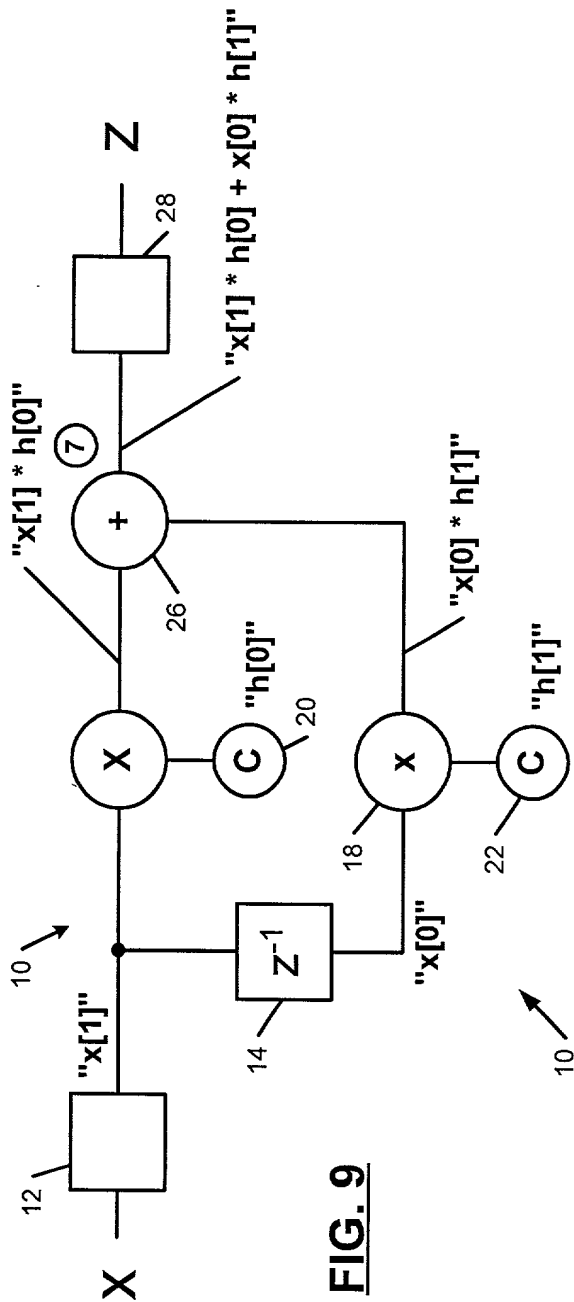


FIG. 11

Component	Value of string at component output	Printed to equation file
input — 12	x[1]	
delay — 14	s[14,0,1]	s[14,0,1] := x[0]
multiplier — 16	s[16,0,1]	s[16,0,1] := x[1] * h[0]
multiplier — 18	s[18,0,1]	s[18,0,1] := s[14,0,1] * h[1]
adder — 26	s[26,0,1]	s[26,0,1] := s[16,0,1] + s[18,0,1]
output — 28	z[1]	z[1] := s[26,0,1]

$$y[n] = \sum_{k=1}^Q h[k] * x[n-k]$$
$$z[n] = \sum_{j=1}^Q g[j] * y[n-j]$$
$$z[n] = \sum_{j=1}^Q g[j] \sum_{k=1}^Q h[k] * x[n-j-k]$$
$$z[n] = \sum_{j=1}^Q \sum_{k=1}^Q g[j] * x[n-j-k]$$

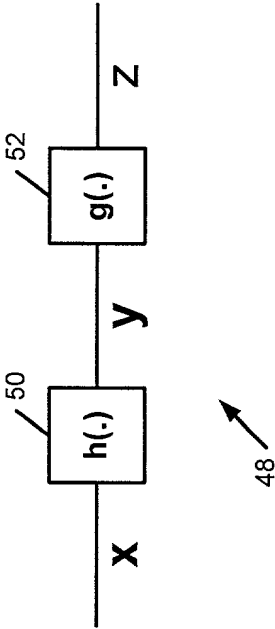


FIG. 12

FIG. 13

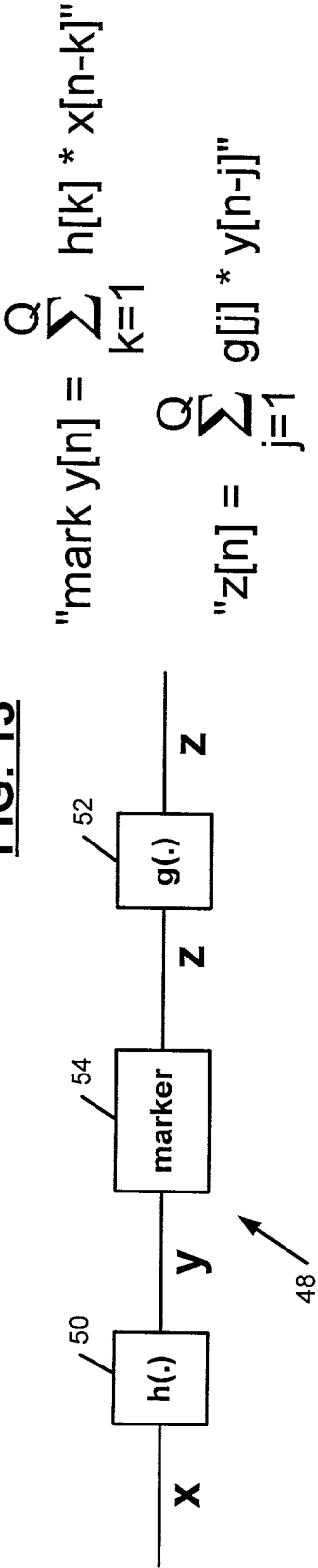


FIG. 14



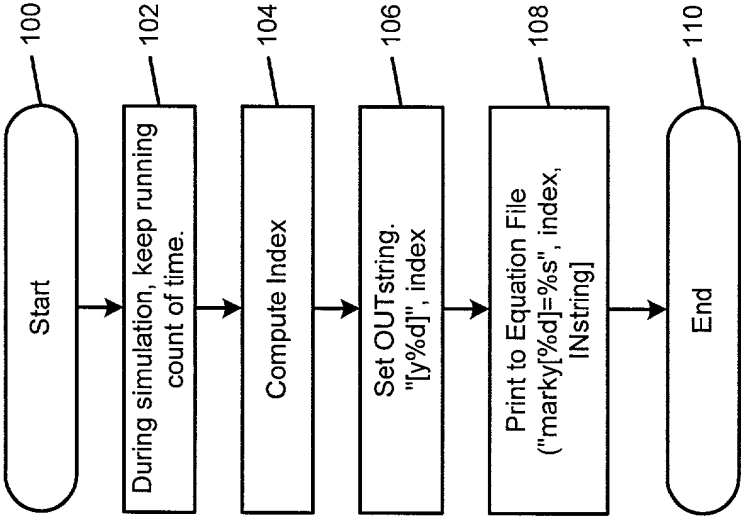


FIG. 15

FIG. 16

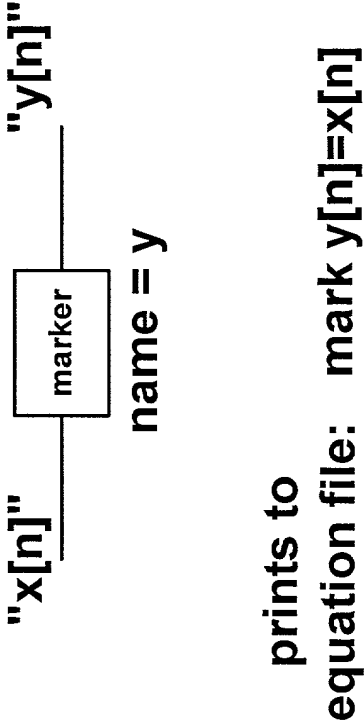


FIG. 17 is a block diagram of a circuit component 10. The component 10 includes an input 12, a delay 14, a multiplier 16, a multiplier 18, a marker 60, an adder 26, and an output 28. The input 12 is connected to the multiplier 16. The multiplier 16 is connected to the marker 60. The marker 60 is connected to the adder 26. The adder 26 is connected to the output 28. The delay 14 is connected to the multiplier 18. The multiplier 18 is connected to the multiplier 16. The multiplier 16 is connected to the marker 60. The marker 60 is connected to the adder 26. The adder 26 is connected to the output 28.

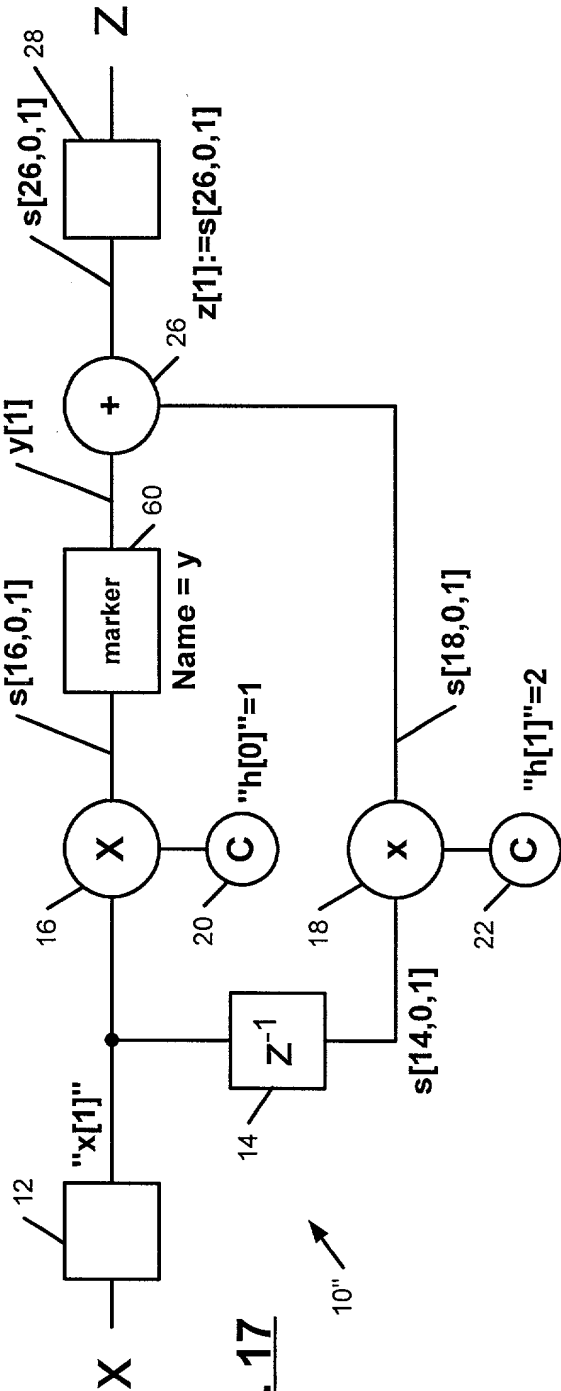


FIG. 17

Component	Value of string at component output	Printed to equation file
input ← 12	x[1]	
delay ← 14	s[2,0,1]	s[2,0,1] := x[0]
multiplier ← 16	s[3,0,1]	s[3,0,1] := x[1] * h[0]
multiplier ← 18	s[4,0,1]	s[4,0,1] := s[2,0,1] * h[1]
marker ← 60	y[1]	mark y[1] := s[3,0,1]
adder ← 26	s[7,0,1]	s[7,0,1] := y[n] + s[4,0,1]
output ← 28	z[1]	z[1] := s[7,0,1]

FIG. 18

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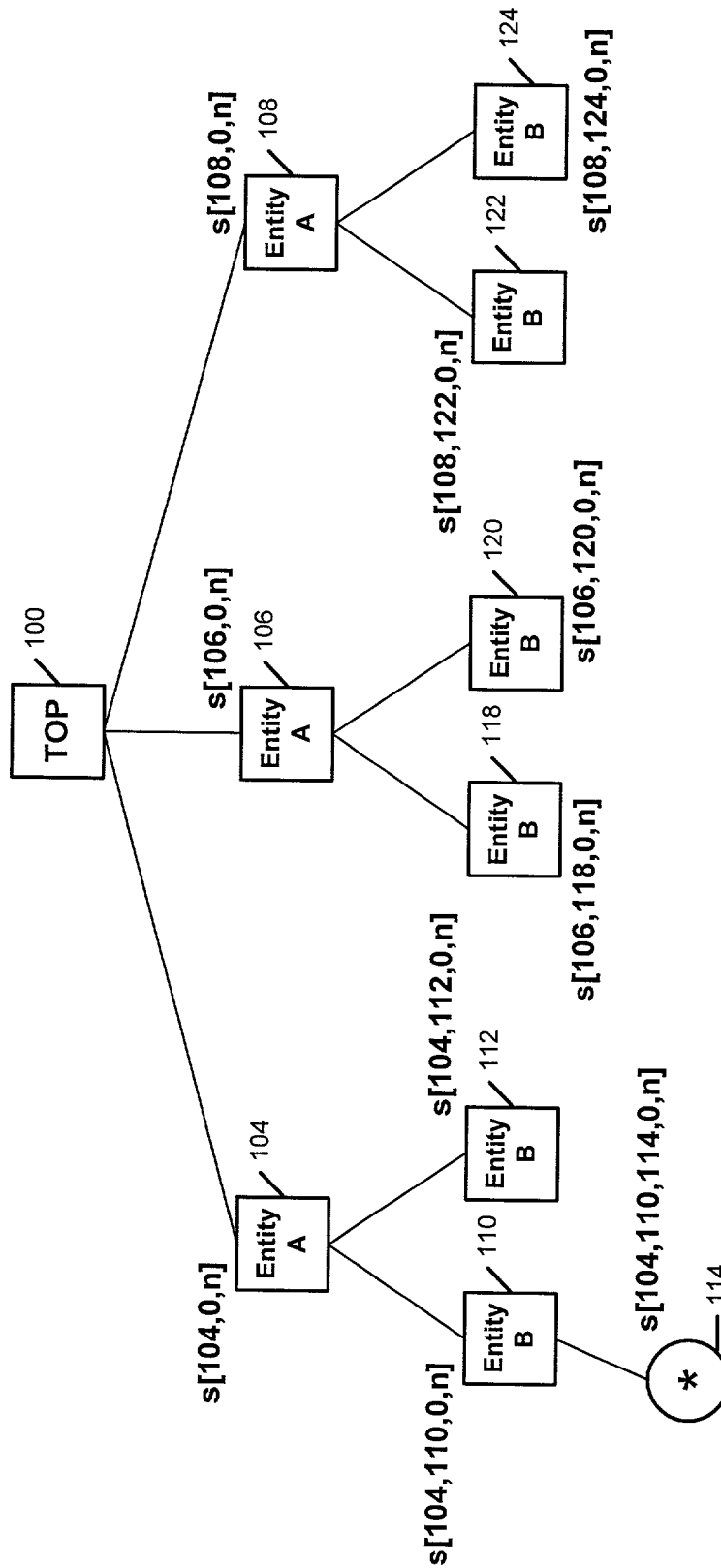


FIG. 19

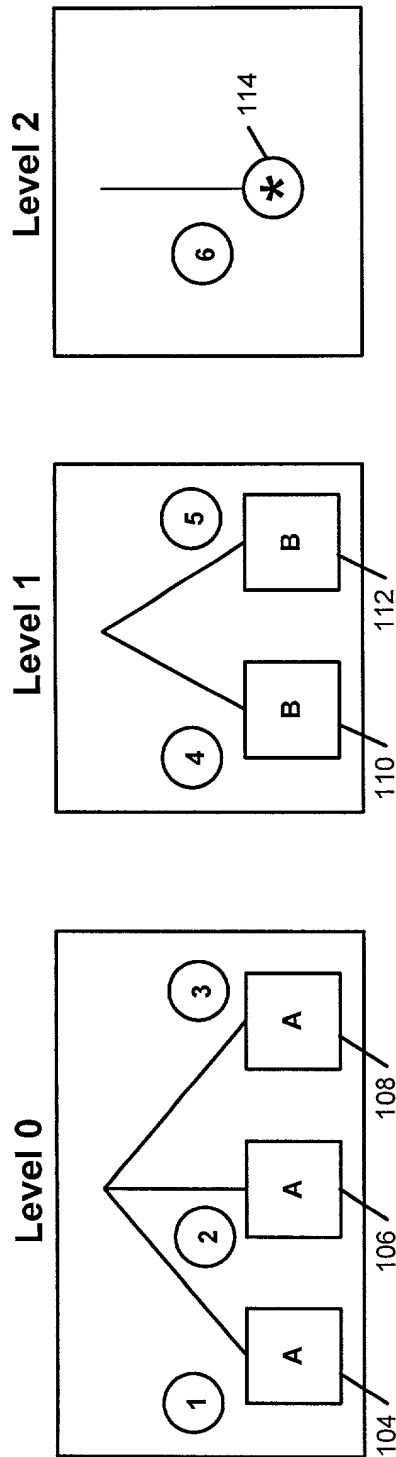


FIG. 20

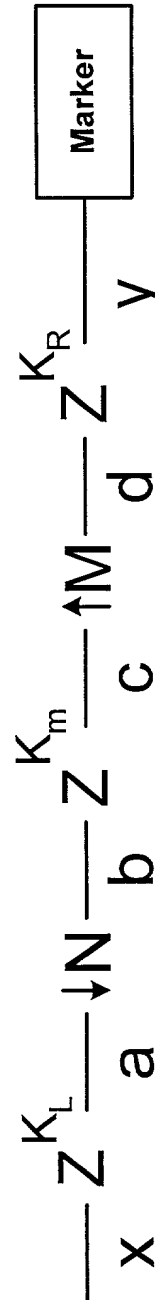


FIG. 21